

AMENDMENTS TO THE CLAIMS

This Listing of Claims will replace all prior versions, and listings of claims in the application:

Claim 1. (Currently amended) An isolated ~~motilin receptor protein comprising~~ polypeptide consisting of the amino acid sequence set forth in SEQ ID NO: 3 which functions as a receptor for motilin.

Claim 2. (Canceled)

Claim 3. (Canceled)

Claim 4. (Currently amended) An isolated ~~motilin receptor protein comprising~~ polypeptide consisting of the amino acid sequence encoded by the nucleotide sequence set forth in SEQ ID NO:2 ~~or SEQ ID NO:4~~ which functions as a receptor for motilin.

Claim 5. (Canceled)

Claim 6. (Canceled)

Claim 7. (Withdrawn) A motilin receptor according to Claim 6 which is 75E7 having the amino acid sequence SEQ.ID.NO.:7.

Claim 8. (Currently amended) A method for determining whether a test compound ligand is capable of ~~binding agonizing or antagonizing to a human~~ motilin binding receptor comprising:

(a) ~~transfecting test indicator cells with an expression vector encoding a motilin receptor protein comprising the amino acid sequence set forth in SEQ ID NO:3 or SEQ ID NO: 5 comprising~~ consisting of the nucleotide sequence set forth in SEQ ID NO:1 or SEQ ID NO:2;

(b) exposing the test indicator cells to the test compound ligand in the presence of detectably labeled motilin;

(c) measuring the amount of motilin binding of the ligand to the motilin receptor indicator cells;

(d) ~~comparing the amount of motilin binding of the ligand to the motilin receptor in the test indicator cells with the amount of motilin binding of the ligand to control test cells that have not been transfected with the motilin receptor where exposed to the detectably-labeled motilin in the absence of a test compound wherein if the amount of motilin binding of the ligand to the test indicator cells is greater than in the presence of the test compound differs from the amount of motilin binding of the ligand to the control cells in the absence of the test compound, then the substance test compound is capable of binding agonizing or antagonizing to motilin receptor binding.~~

Claim 9. (Canceled)

Claim 10. (Currently amended) An isolated nucleic acid comprising a nucleotide sequence encoding a polypeptide which functions as a human motilin receptor, wherein the nucleic acid sequence is selected from the group consisting of:

- (a) a nucleic acid sequence consisting of the ~~nucleic acid~~ nucleotide sequence of SEQ ID NO:2;
- (b) a nucleic acid sequence consisting of ~~the nucleic acid~~ a nucleotide sequence of SEQ ID NO: 4 which encodes a polypeptide consisting of the amino acid sequence of SEQ ID NO: 3 ;
- (c) ~~a cDNA sequence encoding a motilin receptor isolated from a human thyroid library~~ nucleic acid sequence consisting of the nucleotide sequence of SEQ ID NO: 1; and
- (d) a cDNA sequence ~~encoding a motilin receptor~~ isolated from a host cell transfected with the nucleic acid of SEQ ID NO: 1 which encodes a polypeptide that functions as a receptor for motilin.

Claim 11. (Currently amended) An isolated nucleic acid molecule encoding a protein according to claim 3 1, wherein the nucleic acid consists of a cDNA sequence isolated from a human thyroid DNA library.

Claim 12. (Currently amended) ~~A~~ An isolated cDNA encoding a polypeptide that functions as a human motilin receptor wherein the cDNA consists of a nucleic acid isolated from a host cell transfected with an expression vector comprising SEQ ID NO:1.

Claim 13. (Previously presented) An expression vector comprising a nucleic acid according to Claim 10.

Claim 14. (Currently amended) An expression vector comprising a nucleic acid comprising a nucleotide sequence that encodes a polypeptide which functions as a human motilin receptor, wherein the nucleic acid sequence is selected from the group consisting of:

- (a) SEQ ID NO:1;
- (b) SEQ ID NO:2;
- (c) a nucleotide sequence encoding the amino acid sequence set forth in SEQ ID NO:[(4)] 3;
- (d) ~~a cDNA sequence encoding a motilin receptor isolated from a human thyroid library;~~ and

(d) ~~(e)~~ a cDNA sequence ~~encoding a motilin receptor~~ isolated from a host cell transfected with the nucleic acid of SEQ ID NO: 1 which encodes a polypeptide that functions as a receptor for motilin.

Claim 15. (Currently amended) A A recombinant host cell transfected with a vector according to claim 14.

Claim 16. (Currently amended) A A recombinant host cell expressing a human motilin receptor, wherein said motilin receptor consists of an amino acid sequence selected from the group consisting of SEQ ID NO: 3 and SEQ ID NO: 5.